



\$ IFW

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of)

Ravkin et al.)

Application No. 10/816,432)

Filed: March 31, 2004)

For: SUBSTRATE BRUSH SCRUBBING AND)
PROXIMITY CLEANING-DRYING)
SEQUENCE USING COMPATIBLE)
CHEMISTRIES, AND METHOD,)
APPARATUS, AND SYSTEM FOR)
IMPLEMENTING THE SAME)

Examiner: Bibi S. Carrillo

Art Unit: 1746

Docket No. LAM2P463

Date: September 12, 2005



CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on September 12, 2005.

Signed: _____

Fariba Yadegar-Bandari

INFORMATION DISCLOSURE STATEMENT
UNDER 37 CFR §§1.56 AND 1.97(c) and (e)

Mail Stop: Amendment
Commissioner of Patents and Trademarks
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

The references listed in the attached PTO Form 1449, (the copies of references which are not U.S. Patents have been attached), may be material to examination of the above-identified patent application. The Applicants submit these references in compliance with the Applicants' duty of disclosure pursuant to 37 CFR §§1.56 and 1.97. The Examiner is requested to make this citation of official record in the subject application. This Information Disclosure Statement (IDS) is not to be construed as a representation that a search has been made, that additional information material to the examination of the subject application does not exist, or that these references indeed constitute prior art.

The Applicants herein attach a copy of the International Search Report issued by the International Searching Authority in the counterpart International Patent Application. It is respectfully submitted that the four references cited in the International Search Report have already been cited by the Office in the subject application, and as such, have not been produced.

References K3 (JP08277486), L3 (JP05837190), and M3 (JP02280330) cited on sheet three of the Form 1449 are in the Japanese language. Corresponding English language abstracts have been enclosed herewith. Furthermore, Reference O3 is an English summary of Reference L3 (JP05837190). The Applicants respectfully submit that the English language abstracts and the English summary are general representations of what the respective

09/23/2005 EAYALEW1 00000006 10816432

180.00 DP

01 FC:1806

references are teaching. Yet further, Reference N3 is a machine-generated translation of Reference K3 (JP08277486).

Still Further, References K4 (JP2309638), L4 (JP11350169), and M4 (JP 2003-151948) on sheet four of Form 1449 are in the Japanese language. Corresponding English language abstracts have been enclosed herewith. The Applicants respectfully submit that the English language abstracts are general representations of what the respective references are teaching. Additionally, Reference N4 is a machine-generated translation of Reference L4 (JP11350169).

If the Office feels that more translation is needed, the Applicants will provide such additional translation upon any such request. Absent such request from the Examiner, the Applicants will assume that the Office finds the translations sufficient.

The fee of (\$180.00) as required in 37 C.F.R. § 1.17(p) is included with this Transmittal. The Commissioner is authorized to charge any additional fees that may be due to our Deposit Account No. 50-0805 (Order No. LAM2P463). A duplicate copy of the Transmittal is enclosed for this purpose.

Respectfully submitted,
MARTINE PENILLA & GENCARELLA, LLP

A handwritten signature in black ink, consisting of a series of loops and a long horizontal stroke, positioned above the printed name.

Fariba Yadegar-Bandari, Esq.
Reg. No. 53,805

710 Lakeway Drive, Suite 200
Sunnyvale, CA 94085
Telephone: (408) 774-6913
Facsimile: (408) 749-6901
Customer Number 25920

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Complete if Known

Application Number	10/816,432
Filing Date	March 31, 2004
First Named Inventor	RAVKIN et al.
Art Unit	1746
Examiner Name	Bibi S. Carrillo
Attorney Docket Number	LAM2P463

Sheet 1 of 6

U.S. Patent Documents

Examiner Initials	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
	A1	2002/0020622 A1	02/21/02	Hanson et al.	
	B1	2002/0121290 A1	09/05/02	Tang et al.	
	C1	2002/0125212 A1	09/12/02	Mertens et al.	
	D1	2004/0060581 A1	04/01/04	Garcia et al.	
	E1	2004/0136494 A1	07/15/04	Lof et al.	
	F1	2004/0178060 A1	09/16/04	Ravkin et al.	
	G1	5,271,774	12/21/93	Leenaars et al.	
	H1	5,343,234	8/30/94	Kuehnle	
	I1	5,361,449	11/08/94	Akimoto	
	J1	5,472,502	12/95	Batchelder	

Foreign Patent Documents

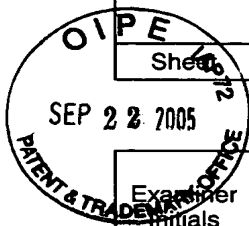
Examiner Initial	Cite No. ¹	Foreign Patent Document No.	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ -Number- ⁴ Kind Code ⁵ (if known)				
	K1	EP 0 905 746 A1	3/31/99	Internersitair Micro-Elektronica Centrum VZW		<input type="checkbox"/>
	L1	EP 0 905 747 A1	3/31/99	Internersitair Micro-Elektronica Centrum VZW		<input type="checkbox"/>
	M1	WO 99/16109 A1	4/1/99	Internersitair Micro-Elektronica Centrum VZW		<input type="checkbox"/>

Non Patent Literature Documents

Examiner Initial	Cite No.	Include name of author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published
	N1	J.A. Britten, "A moving-zone Marangoni drying process for critical cleaning and wet processing," October, 1997, <i>Solid State Technology</i>
	O1	OWA et al. "Immersion lithography; its potential performance and issues", Proceedings of the SPIE, SPIE, Bellingham, VA, US, Vol. 5040, No. 1, February 28, 2003, pages 724-733, XP002294500
Examiner Signature		Date Considered

Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English language translation is attached.



Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Complete if Known	
				Application Number	10/816,432
				Filing Date	March 31, 2004
				First Named Inventor	RAVKIN et al.
				Art Unit	1746
				Examiner Name	Biba S. Carrillo
Sheet	2	of	6	Attorney Docket Number	LAM2P463

U.S. Patent Documents

Examiner Initials	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
	A2	2004/0182422 A1	09/23/04	Boyd et al.	
	B2	3,953,265	4/27/76	Hood	
	C2	4,444,492	4/24/84	Lee	
	D2	4,838,289	06/13/89	Kottman et al.	
	E2	5,102,494	4/7/92	Harvey et al.	
	F2	5,180,431	1/19/93	Sugimoto et al.	
	G2	5,807,522	09/15/98	Brown et al.	
	H2	5,830,334	11/03/98	Kobayashi	
	I2	5,882,433	03/16/99	Ueno	
	J2	5,945,351	08/31/99	Mathuni	

Foreign Patent Documents

Examiner Initial	Cite No. ¹	Foreign Patent Document No.	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ -Number- ⁴ Kind Code ⁵ (if known)				
	K2	WO 02/01613 A3	1/3/02	Applied Materials, Inc.		<input type="checkbox"/>
	L2	WO 02/32825 A1	4/25/02	The Regents of the University of California		<input type="checkbox"/>
	M2	WO 02/101795 A3	12/19/02	Verteq, Inc.		<input type="checkbox"/>

Non Patent Literature Documents

Examiner Initial	Cite No.	Include name of author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published
	N2	LIM et al., "Atomic Layer deposition of transition metals", Department of Chemistry and Chemical Biology, Harvard University, Nature Publishing Group, Volume 2, November 2003, Pages 749-754
	O2	ICKnowledge LLC, "Technology Backgrounder: Atomic Layer Deposition", ICKnowledge.com, 2004, Pages 1-7

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English language translation is attached.

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Complete if Known	
				Application Number	10/816,432
				Filing Date	March 31, 2004
				First Named Inventor	RAVKIN et al.
				Art Unit	1746
				Examiner Name	Bibi S. Carrillo
Sheet	3	of	6	Attorney Docket Number	LAM2P463

U.S. Patent Documents

Examiner Initials	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
	A3	5,558,111	09/96	Lofaro	
	B3	5,601,655	02/11/97	Bok et al.	
	C3	5,660,642	8/26/97	Britten	
	D3	5,705,223	01/06/98	Bunkofske	
	E3	5,709,757	01/98	Hatano et al.	
	F3	5,807,522	09/15/98	Brown et al.	
	G3	5,830,334	11/3/98	Kobayashi	
	H3	5,882,433	3/16/99	Ueno	
	I3	5,893,004	4/6/99	Yamamura	
	J3	5,945,351	08/31/99	Mathuni	

Foreign Patent Documents

Examiner Initial	Cite No. ¹	Foreign Patent Document No.	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ -Number- ⁴ Kind Code ⁵ (if known)				
	K3	JP08277486 (Patent Abstract in English provided)	10/22/96	Dainippon Printing Co. Ltd.		<input type="checkbox"/>
	L3	JP05837190 (Patent Abstract in English provided)	03/04/83	Sonitsukusu: KK		<input type="checkbox"/>
	M3	JP02280330 (Patent Abstract in English provided)	11/16/90	Mitsubishi Electric Corporation		<input type="checkbox"/>

Non Patent Literature Documents

Examiner Initial	Cite No.	Include name of author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published
	N3	Machine generated English translation of JP08277486 (Reference K3)
	O3	English Summary of JP05837190 (Reference L3)

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English language translation is attached.

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Complete if Known	
				Application Number	10/816,432
				Filing Date	March 31, 2004
				First Named Inventor	RAVKIN et al.
				Art Unit	1746
				Examiner Name	Bibi S. Carrillo
Sheet	4	of	6	Attorney Docket Number	LAM2P463

U.S. Patent Documents

Examiner Initials	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
	A4	5,975,098	11/2/99	Yoshitani et al.	
	B4	5,989,478	11/23/99	Ouellette et al.	
	C4	5,997,653	12/07/99	Yamasaka	
	D4	6,086,454	07/00	Watanabe et al.	
	E4	6,092,937	07/00	Snodgrass et al.	
	F4	6,108,932	8/29/00	Chai	
	G4	6,132,586	10/17/00	Adams et al.	
	H4	6,214,513	04/10/01	Cai et al.	
	I4	6,230,722	05/15/01	Mitsumori et al.	
	J4	6,341,998	01/29/02	Zhang	

Foreign Patent Documents

Examiner Initial	Cite No. ¹	Foreign Patent Document No.	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ -Number- ⁴ Kind Code ⁵ (if known)				
	K4	JP02309638 (Patent Abstract in English provided)	12/25/90	Fujitsu Ltd.		<input type="checkbox"/>
	L4	JP11350169 (Patent Abstract in English provided)	12/21/99	Chemitoronics Co.		<input type="checkbox"/>
	M4	JP 2003-151948 (Patent Abstract in English provided)	05/23/03	Seiko Epson Corporation		<input type="checkbox"/>

Non Patent Literature Documents

Examiner Initial	Cite No.	Include name of author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published
	N4	Machine generated English translation for JP11350169 (Reference L4)
	O4	"Chemical vapor deposition", Wikipedia, the free encyclopedia, http://en.wikipedia.org/wiki/Chemical_vapor_deposition , 2005, Page 1-2

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English language translation is attached.

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Complete if Known	
				Application Number	10/816,432
				Filing Date	March 31, 2004
				First Named Inventor	RAVKIN et al.
				Art Unit	1746
				Examiner Name	Bibi S. Carrillo
Sheet	5	of	6	Attorney Docket Number	LAM2P463

U.S. Patent Documents

Examiner Initials	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
	A5	6,391,166	05/21/02	Wang	
	B5	6,398,975	06/04/02	Mertens et al.	
	C5	6,417,117	07/09/02	Davis	
	D5	6,488,040	12/03/02	De Larios et al.	
	E5	6,491,764	12/10/02	Mertens et al.	
	F5	6,531,206	03/11/03	Johnston et al.	
	G5	6,555,017	04/29/03	Rushford et al.	
	H5				
	I5				
	J5				

Foreign Patent Documents

Examiner Initial	Cite No. ¹	Foreign Patent Document No.	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ -Number- ⁴ Kind Code ⁵ (if known)				
	K5	EP 1 489 461 A1	12/22/04	ASML Netherlands B.V.		<input type="checkbox"/>
	L5	EP 1 489 462 A2	12/22/04	ASML Holding N.V.		<input type="checkbox"/>
	M5	WO 99/49504	9/30/99	Nippon Kogaku KK		<input type="checkbox"/>

Non Patent Literature Documents

Examiner Initial	Cite No.	Include name of author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published
	N5	SIGMA-ALDRICH, "Atomic Layer Deposition (ALD)", http://www.sigmaaldrich.com/Area_of_Interest/Chemistry/Materials_Science/Thin_Films , 2005, Pages 1-2
	O5	

Unpublished U.S. Patent Applications

Examiner Initial	Cite No. ¹	Application Number	Filing Date	Name of Applicant of Cited Document	Pages, Columns, Lines, where Relevant Passages or Relevant Figures Appear
	P5	10/742,303	12/18/03	Boyd et al.	
	Q5	10/817,398	04/01/04	Korolik et al.	
	R5	10/817,355	04/01/04	Woods	
Examiner Signature			Date Considered		

Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English language translation is attached.

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Complete if Known	
				Application Number	10/816,432
				Filing Date	March 31, 2004
				First Named Inventor	RAVKIN et al.
				Art Unit	1746
Examiner Name	Bibi S. Carrillo				
Sheet	6	of	6	Attorney Docket Number	LAM2P463

U.S. Patent Documents

Examiner Initials	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
	A6				
	B6				
	C6				
	D6				
	E6				
	F6				
	G6				
	H6				
	I6				
	J6				

Foreign Patent Documents

Examiner Initial	Cite No. ¹	Foreign Patent Document No.	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ -Number- ⁴ Kind Code ⁵ (if known)				
	K7	JP 11-31672 (Patent Abstract in English provided)	02/02/99	Hitachi Ltd.		<input type="checkbox"/>
	L7					<input type="checkbox"/>
	M7					<input type="checkbox"/>

Non Patent Literature Documents

Examiner Initial	Cite No.	Include name of author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published
	N6	
	O6	

Unpublished U.S. Patent Applications

Examiner Initial	Cite No. ¹	Foreign Patent Document No.	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ -Number- ⁴ Kind Code ⁵ (if known)				
	P6	10/817,620	04/01/04	Woods		<input type="checkbox"/>
	Q6	10/817,133	04/01/04	Woods et al.		<input type="checkbox"/>
	R6	10/834,548	04/28/04	Hemker et al.		<input type="checkbox"/>
Examiner Signature			Date Considered			

Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language translation is attached.